



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/772,322	02/06/2004	Cheng-Chieh Liu	0941-0911P	6485
2292	7590	08/05/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			LE, DANG D	
			ART UNIT	PAPER NUMBER
			2834	

DATE MAILED: 08/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/772,322

Applicant(s)

LIU ET AL.

Examiner

Dang D. Le

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/14/05 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 17-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Horng (6,462,443).

Regarding claim 17, Horng shows a heat-dissipating device, comprising:

- a chassis (4);
- a stator (1) disposed on the chassis (4);
- a rotor (5) surrounding the stator and coupled to the stator;
- a motor controller (3) driving and controlling the heat-dissipating device; and

Art Unit: 2834

- a container (11) directly mounted on the stator and having a slot (15 and holes for 31) to secure the motor controller.

Regarding claims 18-23, it is noted that Horng also shows all of the limitations of the claimed invention including the cover (13), the U-shaped pillars (portions engaging 13), pin (31), and integrated circuit (column 2, lines 40-45).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirotori (4,818,907) in view of Horng and further in view of Muller (4,554,473).

Regarding claim 1, Shirotori shows a container (7) for mounting a sensor (6) for a spindle motor having a chassis (1), said container comprising a main body (Figure 1)

Art Unit: 2834

directly mounting on the chassis (1) of the motor and having a slot (1b) to receive the motor sensor (6).

Shirotori does not show the motor being a heat-dissipating device and the sensor being the motor controller.

Horng shows that the sensor (3) can be made with the integrated circuit for the purpose of reducing components.

Muller teaches that the spindle motor can be made as a heat-dissipating device (Figures 1 and 2) for the purpose of reducing heat.

Since Shirotori, Horng, and Muller are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the sensor as a motor controller and to make the motor as a heat-dissipating device as respectively taught by Horng and Muller for the purposes discussed above.

Regarding claims 2, 3, and 7, it is noted that Horng also shows all of the limitations of the claimed invention.

7. Claims 1-3 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirotori (4,818,907) in view of Horng and further in view of Muller (4,554,473).

Regarding claim 1, Shirotori shows a container (7) for mounting a sensor (6) for a spindle motor having a chassis (1), said container comprising a main body (Figure 1)

Art Unit: 2834

directly mounting on the chassis (1) of the motor and having a slot (1b) to receive the motor sensor (6).

Shirotori does not show the motor being a heat-dissipating device and the sensor being the motor controller.

Horng shows that the sensor (3) can be made with the integrated circuit for the purpose of reducing components.

Muller teaches that the spindle motor can be made as a heat-dissipating device (Figures 1 and 2) for the purpose of reducing heat.

Since Shirotori, Horng, and Muller are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to make the sensor as a motor controller and to make the motor as a heat-dissipating device as respectively taught by Horng and Muller for the purposes discussed above.

Regarding claims 2, 3, and 7, it is noted that Horng also shows all of the limitations of the claimed invention.

8. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirotori in view of Horng and Muller as claimed in claim 1 above, and further in view of Doemen et al. (4,482,849).

Regarding claim 4, the motor of Shirotori modified by Horng and Muller includes all of the limitations of the claimed invention except for the hook.

Doemen et al. shows the hook (179, 180) for the purpose of mounting the container easily.

Since Shirotori, Horng, Muller, and Doemen et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include hooks as taught by Doemen et al. for the purpose discussed above.

Regarding claims 5 and 6, it is noted that Doemen et al. also shows all of the limitations of the claimed invention including the pillars (56).

9. Claims 8-10, 14, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoover et al. (4,910,420) in view of Horiuchi et al. (5,969,445).

Regarding claim 8, Hoover shows a heat-dissipating device (Figure 2), comprising:

- a chassis (80);
- a stator (72) disposed on the chassis;
- a rotor (54) surrounding the stator and coupled to the stator;
- a motor controller (108) driving and controlling the heat-dissipating device.

Hoover et al. does not show a container directly mounted on the chassis and having a slot to receive the motor controller.

Horiuchi et al. shows a container (45) directly mounted on the chassis (46) and having a slot to receive the switching device for the purpose of reducing heat.

Art Unit: 2834

Since Hoover et al. and Horiuchi et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include a container as taught by Horiuchi al. for the purpose discussed above.

Regarding claims 9, 10, 14, and 15, it is noted that Horiuchi et al. also shows all of the limitations of the claimed invention.

10. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoover et al. in view of Horiuchi et al. and further in view of Doemen et al.

Regarding claim 11, the motor of Hoover modified by Horiuchi et al. includes all of the limitations of the claimed invention except for the hole and the hooks.

Doemen et al. shows hooks (179, 180) and holes for the purpose of mounting the container easily.

Since Hoover et al., Horiuchi et al., and Doemen et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include hooks and holes as taught by Doemen et al. for the purpose discussed above.

Regarding claims 12 and 13, it is noted that Doemen et al. also shows all of the limitations of the claimed invention.

Art Unit: 2834

11. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoover et al. in view of Horiuchi et al. and further in view of Horng.

Regarding claim 16, the motor of Hoover modified by Horiuchi et al. includes all of the limitations of the claimed invention except for the motor controller being an integrated circuit.

Horng et al. shows the motor controller (3) being an integrated circuit with the Hall sensor for the purpose of reducing parts.

Since Hoover et al., Horiuchi et al., and Horng et al. are all from the same field of endeavor; the purpose disclosed by one inventor would have been recognized in the pertinent art of the others.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the sensor with the controller as taught by Horng for the purpose discussed above.

Information on How to Contact USPTO

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dang D. Le whose telephone number is (571) 272-2027. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (571) 272-2044. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2834

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

8/2/05

A handwritten signature in black ink, appearing to read "Dong Le". The signature is fluid and cursive, with the first name "Dong" and last name "Le" clearly distinguishable.

DANG LE
PRIMARY EXAMINER